

AVIATION

The Oldest American Aeronautical Magazine

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VOLUME
XXIII

SPECIAL FEATURES

NUMBER
14

THE SPOKANE AIR DERBIES
GREAT BRITAIN WINS SCHNEIDER TROPHY
OFFICIAL RESULTS OF THE NATIONAL AIR RACES

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Guide Posts of the Air

THE Standard Oil Company (Indiana) is interested in the promotion of commercial aviation. Evidence of this interest is found in the marking of towns and city names on the roofs of all its warehouses located along military and commercial airways.

This work is being carried out under the auspices of the United States Army Air Corps Service and the National Aeronautics Service.

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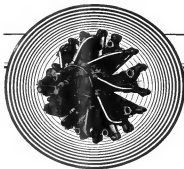
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These two products have thousands of flying hours to their credit. And as no airplane has three parts better an engine has one: Stanolind Aviation Gasoline and Aero Oils.

This extraordinary record reflects the extreme care given by this company in the manufacture of its aviation products, which are the choice of the majority of pilots throughout the middle-west.

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Wasp & Hornet Leadership

One piece Master Connecting Rod and Built-up Crankshaft.

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Grouping of all accessories at the rear of the engine.

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Grouping of all Accessories at the rear of the Engine

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In this basic feature the "Wasp" and "Hornet" have materially influenced all modern air cooled engine design.

The Wasp
431 H.P.
at 1900 R.P.M.
Weight 650 lbs.

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521 H.P.
at 1900 R.P.M.
Weight 750 lbs.

THE
PRATT & WHITNEY AIRCRAFT CO.
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DEPENDABLE ENGINES

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At our field you will see planes landing from the commercial manufacturers (90% of all the commercial planes built in America are produced in the mid-western section where we are located.) In our supply department you will see from 50 to 100 separate orders, totaling thousands of dollars being shipped every day. You will see shipments going out to Wales, Great Britain, England, Sweden, New York, Panama, Liberia, Ecuador, Argentina, Egypt, Peru and many others. You will see so much in a few minutes that you will be convinced that here is the school you are looking for — that here is safety and responsibility and facilities unequalled by any other school in the world. You will realize that at last the day of haphazard training is over — that we have gone to pains and expense never before attempted by any school.

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Over the Rockies with the Modern Pony Express

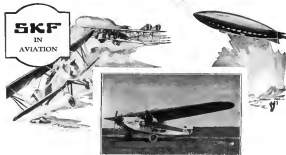
Twenty-four "Waip" engines in Boeing mail planes flew more than 121,000 miles during August over the Transcontinental Route from Chicago to San Francisco without adjustment or mechanical difficulty. The total mileage of these engines is now approximately 300,000.

Such performance is merely typical of what may be expected of this modern air cooled radial engine, whether in Naval, Military, or Commercial service.



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PRATT & WHITNEY AIRCRAFT CO.
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Wherever Performance Takes Preference Over Price **SKF** Bearings Are Specified

IN all fields of commercial aviation, reliability is a factor which cannot be overstressed. Not only must a definite schedule be maintained in many instances, but safety is a vital necessity if profitable operation is to result.

On the three Wright motors on this rapid transit plane, **SKF** Ball Bearings

are used at every important bearing location. Years of successful operation in government, commercial and pioneering fields has demonstrated the dependability of **SKF** Bearings for motors, controls and wherever performance must take preference over price. Today, they are pre-eminent in aviation engineering.

SKF INDUSTRIES, INC., 40 East 34th Street, New York, N. Y.



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Raising the Standards



THE CURTISS V-1550 MOTOR

What the four entries did at Spokane September 24th

Winners of the Liberty Engine Builders Trophy Race

First, Lt. H. A. Johnson, USA, in Curtiss Falcon

Average Speed 170 MPH

Second, Lt. G. A. McHenry, USA, in Curtiss Falcon

Average Speed 162 MPH

Winners of Free For All Pursuit Ship Race

First, Lt. Eugene Bates, USA, in Curtiss Hawk

Average Speed 204 MPH

Second, Lt. A. J. Lyon, USA, in Curtiss Hawk

Average Speed 180 MPH

When the now-famous Curtiss D-12 motor of 435 horsepower was introduced to the aeronautical industry in 1923, it immediately raised the standards of design for high-performance military aircraft. Its tremendous power, small frontal area, and low weight per horsepower made possible the development of the remarkable American fighting planes which today are acknowledged as the world's finest.

The new 600 horsepower Curtiss V-1550 motor has far more power, less frontal area, and lower weight per horsepower than the D-12. It retains all of the basic design features which have made the D-12 noted for its smooth operation and unfailing reliability.

The V-1550 again raises the standards in military aircraft design

The CURTISS AEROPLANE & MOTOR CO., Inc.

Offices: Garden City, N. Y.

Factories: Garden City and Buffalo, N. Y.



The Oldest American Aeronautical Magazine

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Seaplane Development

THE FIRST crossing of the North Atlantic was accomplished by the NC4 flying boat. Two sister ships were forced down by bad weather but there was no loss of life among either of the crews. Later the Italian World Team attempted the flight from East to West via Iceland and Greenland. They were accompanied by the Italian seaplane Langostini in a Dornier flying boat. Two of the World Team made the crossing but one of the American planes was forced down by engine trouble and the Italian was forced down by bad weather. However the crews of both the seaplane and the flying boat were rescued. The latest attempt to cross the North Atlantic by flying boat was de Pereda's flight last spring. He also was forced down short of his goal but in this case both the plane and the crew ultimately reached their destination.

In other words out of eight attempts to cross the North Atlantic by seaplane or flying boat there have been four cases where the planes have been forced down but in no case has there been loss of life. In every case but one when land planes have been forced down while flying over the Atlantic there has been loss of life.

From this evidence and that of other transoceanic flights it is fairly obvious that so long as there is a possibility of planes being forced down either by bad weather or by mechanical failure it will be advisable to use seaplanes or flying boats. Why, therefore, have all the flights attempted by Americans this year been made by land planes? The fundamental answer is simply that there were no commercial flying boats or seaplanes available which were capable of making such long non-stop flights. The flying boat with its heavy hull will probably never be able to make so long non-stop flights as land planes but in this country at any rate this is only part of the story, the truth being that the development of the flying boat has received only a small part of the attention and effort which has been spent on land planes and naturally the design has not progressed as far.

The trans-Atlantic flights of this summer have brought to people's minds the *essential* possibilities of trans-Atlantic seaplane service and as the flying boat is the logical vehicle, its development should go on more rapidly than in the past. Also several commercial factors have created the need for efficient flying boats and some of the flying boats and amphibians which have been built this summer will undoubtedly go into production. It is certainly to be hoped that America will some day catch up to Europe in the development of seaplanes for which promise to be a most important part of aeronautical development.

Stepping Up the Horsepower

MANY YEARS ago it was found that if racing automobiles were not limited to power they attained such speed that it was impossible to keep them on a city or road or track. Certain defects were there (as planned an cylinder capacity and sizes of automobiles thus classified have contributed greatly to the advancement of engine design. Airplane races have also been classified according to horsepower but the limited maximum for airplane racing has not enabled sufficient prize money to be put up to make worth while the building of purely racing planes which would have a practical value afterwards. Unfortunately the light planes has been the only exception so far in this country and though the light plane races of the last few years have been interesting and sporting in their character they have probably done more harm than good. The reason for this is that they were not carried far enough to give valuable results aerodynamically and yet the fact that the planes were really designed primarily for racing has given the impression that all light planes were extremely designed and tricky to fly.

These facts and the general feeling among aeronautical people that there is something tricky about raising the horsepower of a given engine has not led to any really extensive development of limited class cylinder racing. That this field is a really interesting and instructive one is amply demonstrated by the performance of the de Havilland "Tiger Moth." This plane has a four cylinder air cooled engine which according to its piston area should be rated at thirty-two horsepower. Actually it develops over 100 hp. which would seem about the limit in the stepping-up process. The plane itself in spite of its small size is designed with the utmost refinement and the results are truly amazing for the plane has achieved a high speed of 168 m.p.h. and has climbed to 20,000 ft. in 37 min. Such a performance is equal to that of present planes of many times that power and reliability makes a real test in the advance of engine and plane design. Higher speed can undoubtedly be achieved by constantly increasing the size of engines but few ultimate advantages are obtained, whereas the development of planes with engines of limited power has a real practical value.

The demonstration put up by the Tiger Moth should be taken to heart by operators of air transport lines and they should realize that a plane of really refined design is in the long run worth while even if the initial cost is higher. Increased production tends for decreased manufacturing costs per plane. And in this case successful airplane results would more than compensate for preliminary effort.

The San Francisco-Spokane Derbies



M. C. LIPPERT and A. C. Lee pilot and mechanics respectively with identical winners in the 4-Day, 4-Day, San Francisco-Spokane Air Derby when they glided their Travel Air plane down on to the Spokane, Idaho, municipal airport at 2:16 P.M., Sept. 31. They had rounded their first mile yield, San Francisco municipal airport, at 6:31 that morning and had 8 hr 15 min 37 sec, which included a ten-minute stop-over at Portland, then traversed the 300 mi through flat and over mountainous country.

Fourth place was after Lippert had landed, an International biplane piloted by Lee Scherffing landed in the weeds in the ground to his second prize. Scherffing's passenger, at Thomas F. Waffs, had his time was 6 hr 40 min 35 sec.

Third place in the 4-Day Air Derby was won by Anne Rensie in a Beech monoplane accompanied by his wife and two other passengers. Rensie made the trip in 30 hr 5 min 25 sec.

The Class B San Francisco-Spokane Air Derby was won by Cecil E. Langham who flew an International biplane and was accompanied by E. N. Brown in monoplane. Brown for the entire was 3 hr 58 min 35 sec. Second place was won by D. C. Warren in a Travel Air plane. Warren's time was



The short Travel Air piloted by D. C. Warren, landed second in the Class B San Francisco-Spokane Air Derby.

M. C. Lippert and A. C. Lee and the Travel Air plane is taken they flew to first place in the Class A San Francisco-Spokane Air Derby.

30 hr 28 min 14 sec. Third place was captured by Lee Wiley who covered the distance in an English plane in 30 hr 27 min 38 sec.

On the closing stages, that ended up at Mth. Field for the two races, eight landed safely at Spokane that day, the other three being forced down in various places or near "Yuma." A. G. Gabel, whose plane was involved up at the start of the Derby, was the last plane to arrive in Spokane on the day of the take-off. He piloted the same plane and came to crash in the early evening after being hit and after being reported missing. The day in Spokane (Oregon) showed two considerable trouble and at last he got his bearings and proceeded to Portland and thence to Spokane.

In the Class A event, a close race the third place developed between the Beech and the Fokker (Gurnea), the former landing on the Spokane field two than a minute before the wheels of the Fokker touched the ground.

Take Off of Perfor

The take-off at San Francisco was well-nigh perfect, as quickly did the planes follow each other into the air and disappeared in the distance. Despite the early hour, more than 2000 persons were on hand to witness the start of the 300 mi race through the air. The Class B engines left the ground an hour before sunrise and to Lee Wiley, the first to give up the Derby of his English plane, it landed like a cork, after spending hours on the ground. At the end of 280 ft, it is the plane's place, moved up into the flying wheel of night. Meanwhile, French A. Fourn, the official starter, and dipped by the in front of number two plane. For them in 2 min 32 sec the far was read and lowered. In that short time all starters in the Class B took were off the ground and speeding towards Spokane.

The take-off of the five Class A entries as later below was accompanied with clock-like precision. Scherffing's plane

was flagged on the way two minutes after 6 o'clock and long before he was lost in the half-light of the north, the four other entries were following close behind.

Both entries were maintained in within three and to each model plane. The Class B event was for planes and engines not exceeding 200 hp in displacement and the Class A plane had engines with displacement between 200 and 300 hp.

The arrival of the winners at Spokane, which took place at practically the same time as the arrival of the New York Air race, was greeted with thousands of applicants from the crowd. As each plane landed up over the horizon the spectators headed to the apparatus with a determination that was



The International biplane, piloted by Cecil E. Langham in first place in the Class B race.

exceeded in intensity only by the enthusiasm expressed a few minutes later when the identity of the winning plane and its pilot was ascertained. Upon landing, each pilot was escorted to the judges' stand where his name and place being announced. If so desired, he was allowed to express his thanks through the microphone for his warm reception.

The cash prizes awarded for the Class A race were: first, \$1000, second, \$500, third, \$300. For the Class B race first prize was \$500 and second \$250.

Splittdorf Model VA Aircraft Magnets

The Splittdorf Electrical Co. of Newark, N. J., has recently brought out what is called the Model VA aircraft magnets. The device consists of two independent ignition units arranged in a single assembly. It is essentially an aircraft magnet designed to be mounted vertically in the Vee of the engine, in such a way that these points that negative magnet suspension are readily accessible and easily serviced.

The VA double aircraft magnet is of the induction type, producing four double sparks per revolution. It consists of a frame, top plate, bottom plate, rotor, breaker, breaker and magnets. Cast into the top and bottom portions of the frame are opposite sides are four separate coil poles, it being recognized the other sides carry the magnet poles. The coil poles are bridged on each side by the laminated "C" shaped coil core, the centers of which carry the main primary and secondary windings connected into its high tension magnet distribution.

Rotor Shaft Made of Steel

The rotor consists of four laminated induction spaced around the circumference and arranged apart from each other and displaced 90 deg. The rotor shaft is of steel adapted at the center and the end in place with the induction, making a rigid and well balanced structure. The extended position of the shaft carry the ball bearings, the run on one end and the end drive at the other end.

The top and bottom plates are provided with suitable ducts. These register into the rotor and carry ball rollers for the supporting of the magnet rotor. With the magnets in place, the main induction and the secondary induction poles, creating magnetic lines of force to flow through the coil cores, induces an electric current in the windings. With the

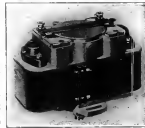
distribution of poles, coils, induction and magnets, it may be readily seen that one revolution of the rotor produces four sparks per revolution. But even more, the design of the magnets strengthen the capacity of producing four double sparks per revolution.

The "C" shaped magnets are made of laminated steel, carefully hardened and accurately ground to give the largest possible surface contact with the pole pieces, producing a magnetic field of high strength and efficiency.

The breaker is made up of two specially designed breaker bars provided with the usual contact points and springs and cooperating with the laminated adjustable contact wires. Precision is also made for the movement of one breaker plate a certain number of degrees so that one spark may be definitely fixed from the other, permitting an exact spark over the contact values should this be desired. A single unit of conventional design actuates both breaker arms, giving four breaker openings per revolution. The unit is actuated by an oil valve.

Two screw mechanisms are mounted in the mounted portions of the top plate adjacent to the event breaker, secured across the contact points, and connected in the primary winding of the wind motor. One of the advantages of this arrangement is the ease with which parts can be replaced when necessary.

The distributor is of the jump gap type, mounted from a rubber compound having high dielectric properties. The rubber mounting method of mounting the distributor blocks on the cam shaft housing is said to have worked with entirely satisfactory. With this arrangement the distributor force is of



The Splittdorf Model VA Aircraft Magnet

simple construction rapidly replacing airplanes. The high tension leads from the sub terminals of the laminated sections on each side of the magnets. Suitable cables convey the current to the distributor points and from there it is distributed to the spark plugs in the usual manner.

Varnay to Manufacture Airplanes

The Varnay Aircraft Corp., 313 Main St., Fortna, E. has announced its intention of building airplanes. The firm was incorporated under the laws of the State of Illinois with a capital stock of \$100,000. Alexander Varnay is president, S. W. Post was president, Tony American second vice president, and John L. Hefner, secretary and treasurer.

Official Results of the National Air Races

FOLLOWING ARE the official results of the National Air Races, including the air derby, held at the Spokane, Wash., municipal airport, Sept. 28-30. These official results comprise of which are related exclusively to the aviation, were all verified by Ode Forster, chairman, E. A. Lind, Jr., referee, and were shown to before L. W. Mason, military police, at Spokane, Wash., on Sept. 28.

NATIONAL AIR DERBY FROM ROOSEVELT FIELD, LONG ISLAND, NEW YORK, TO SPOKANE AIRPORT, SPOKANE, WASHINGTON

CLASS "A"
(Cushion Only)

First Prize	Second Prize	Third Prize	Fourth Prize	Fifth Prize
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$15,000.00	\$5,000.00	\$3,000.00	\$1,000.00	\$500.00

Entry	Placed	Speed	Place	Prize
1. <i>James H. Doolittle</i>	1st	100.00	1st	\$15,000.00
2. <i>James H. Doolittle</i>	2nd	95.00	2nd	\$5,000.00
3. <i>James H. Doolittle</i>	3rd	90.00	3rd	\$3,000.00
4. <i>James H. Doolittle</i>	4th	85.00	4th	\$1,000.00
5. <i>James H. Doolittle</i>	5th	80.00	5th	\$500.00

NATIONAL AIR DERBY FROM ROOSEVELT FIELD, LONG ISLAND, NEW YORK, TO SPOKANE AIRPORT, SPOKANE, WASHINGTON

CLASS "B"
(Cushion Only)

First Prize	Second Prize	Third Prize	Fourth Prize	Fifth Prize
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$5,000.00	\$3,000.00	\$1,000.00	\$500.00	\$250.00

Entry	Placed	Speed	Place	Prize
1. <i>James H. Doolittle</i>	1st	100.00	1st	\$5,000.00
2. <i>James H. Doolittle</i>	2nd	95.00	2nd	\$3,000.00
3. <i>James H. Doolittle</i>	3rd	90.00	3rd	\$1,000.00
4. <i>James H. Doolittle</i>	4th	85.00	4th	\$500.00
5. <i>James H. Doolittle</i>	5th	80.00	5th	\$250.00

PACIFIC COAST AIR DERBY FROM MILLS MUNICIPAL FIELD, SAN FRANCISCO, CAL., TO SPOKANE AIRPORT, SPOKANE, WASHINGTON

CLASS "A"
(Cushion Only)

First Prize	Second Prize	Third Prize	Fourth Prize	Fifth Prize
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$10,000.00	\$5,000.00	\$3,000.00	\$1,000.00	\$500.00

Entry	Placed	Speed	Place	Prize
1. <i>James H. Doolittle</i>	1st	100.00	1st	\$10,000.00
2. <i>James H. Doolittle</i>	2nd	95.00	2nd	\$5,000.00
3. <i>James H. Doolittle</i>	3rd	90.00	3rd	\$3,000.00
4. <i>James H. Doolittle</i>	4th	85.00	4th	\$1,000.00
5. <i>James H. Doolittle</i>	5th	80.00	5th	\$500.00

PACIFIC COAST AIR DERBY FROM MILLS MUNICIPAL FIELD, SAN FRANCISCO, CAL., TO SPOKANE AIRPORT, SPOKANE, WASHINGTON

CLASS "B"
(Cushion Only)

First Prize	Second Prize	Third Prize	Fourth Prize	Fifth Prize
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$5,000.00	\$3,000.00	\$1,000.00	\$500.00	\$250.00

Entry	Placed	Speed	Place	Prize
1. <i>James H. Doolittle</i>	1st	100.00	1st	\$5,000.00
2. <i>James H. Doolittle</i>	2nd	95.00	2nd	\$3,000.00
3. <i>James H. Doolittle</i>	3rd	90.00	3rd	\$1,000.00
4. <i>James H. Doolittle</i>	4th	85.00	4th	\$500.00
5. <i>James H. Doolittle</i>	5th	80.00	5th	\$250.00

PACIFIC COAST AIR DERBY FROM MILLS MUNICIPAL FIELD, SAN FRANCISCO, CAL., TO SPOKANE AIRPORT, SPOKANE, WASHINGTON

CLASS "C"
(Cushion Only)

First Prize	Second Prize	Third Prize	Fourth Prize	Fifth Prize
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$3,000.00	\$1,500.00	\$750.00	\$375.00	\$187.50

Entry	Placed	Speed	Place	Prize
1. <i>James H. Doolittle</i>	1st	100.00	1st	\$3,000.00
2. <i>James H. Doolittle</i>	2nd	95.00	2nd	\$1,500.00
3. <i>James H. Doolittle</i>	3rd	90.00	3rd	\$750.00
4. <i>James H. Doolittle</i>	4th	85.00	4th	\$375.00
5. <i>James H. Doolittle</i>	5th	80.00	5th	\$187.50

PACIFIC COAST AIR DERBY FROM MILLS MUNICIPAL FIELD, SAN FRANCISCO, CAL., TO SPOKANE AIRPORT, SPOKANE, WASHINGTON

CLASS "D"
(Cushion Only)

First Prize	Second Prize	Third Prize	Fourth Prize	Fifth Prize
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$1,500.00	\$750.00	\$375.00	\$187.50	\$93.75

Entry	Placed	Speed	Place	Prize
1. <i>James H. Doolittle</i>	1st	100.00	1st	\$1,500.00
2. <i>James H. Doolittle</i>	2nd	95.00	2nd	\$750.00
3. <i>James H. Doolittle</i>	3rd	90.00	3rd	\$375.00
4. <i>James H. Doolittle</i>	4th	85.00	4th	\$187.50
5. <i>James H. Doolittle</i>	5th	80.00	5th	\$93.75

PACIFIC COAST AIR DERBY FROM MILLS MUNICIPAL FIELD, SAN FRANCISCO, CAL., TO SPOKANE AIRPORT, SPOKANE, WASHINGTON

CLASS "E"
(Cushion Only)

First Prize	Second Prize	Third Prize	Fourth Prize	Fifth Prize
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$750.00	\$375.00	\$187.50	\$93.75	\$46.87

Efficiency

First	Second	Third	Fourth	Fifth
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$500.00	\$250.00	\$125.00	\$62.50	\$31.25

Entry	Placed	Speed	Place	Prize
1. <i>James H. Doolittle</i>	1st	100.00	1st	\$500.00
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3. <i>James H. Doolittle</i>	3rd	90.00	3rd	\$125.00
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WESTERN FLYING TROPHY

First	Second	Third	Fourth	Fifth
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$1,000.00	\$500.00	\$250.00	\$125.00	\$62.50

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1. <i>James H. Doolittle</i>	1st	100.00	1st	\$1,000.00
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DAYTON DAILY NEWS LIGHT AIRPLANE TROPHY

First	Second	Third	Fourth	Fifth
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
\$1,000.00	\$500.00	\$250.00	\$125.00	\$62.50

EVENT NO. IV, DAYTON DAILY NEWS LIGHT AIRPLANE TROPHY

First	Second	Third	Fourth	Fifth
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
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EVENT NO. V, LIBERTY ENGINE BUILDERS' TROPHY

First	Second	Third	Fourth	Fifth
1. <i>James H. Doolittle</i>	2. <i>James H. Doolittle</i>	3. <i>James H. Doolittle</i>	4. <i>James H. Doolittle</i>	5. <i>James H. Doolittle</i>
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1. Douglas 10-5-0	10. W. E. Douglas	100.00	1st
2. Douglas 10-5-0	10. W. E. Douglas	95.00	2nd
3. Douglas 10-5-0	10. W. E. Douglas	90.00	3rd

All times compared to Boston Observatory







Sisterships

The Spirit of St. Louis and the New RYAN BROUGHAM—Five-Place!

This new five-place Ryan Brougham...developed from the famous plane designed and built for Colonel Lindbergh...reflects in quality and workmanship a concentration on a single type and model. It is thoroughly engineered, tested and

*Luxurious appointments.
Distinctive detail.
Wright Whirl equipped,
\$9,700 at Diego.*



proven. The interior, completely upholstered in mohair, has ample room, comfortable seats, perfect visibility, and is easy of access. Ownership of a Ryan Brougham assures you of the utmost in a modern airplane.    

The B. F. MAHONEY AIRCRAFT CORPORATION, San Diego

Aircraft Trade Notes

Sauzade Corp. Undergoing Reorganization

The Sauzade Corp., Detroit, Mich., is now undergoing a reorganization at the instigation of the purchase of a controlling interest by the Donald Brook Co. Inc., Detroit, Mich., N. J. This company is well known in the automobile field. The plan is to produce Sauzade wheels and brakes in a very much larger plant at Donald Brook, N. J., and it is expected that the corporation will be established in the new western plant during October. The Detroit factory will be discontinued. Those active in the reorganization are Harry J. Lindsey and Wm. F. Jennings of the Donald Brook Co. Inc., Detroit, Mich., Claude Sauzade, and Henry de Port of Wilmington, Del.

The Sauzade Corp., since the beginning of 1925, has done a business of close to \$100,000 in airplane wheels and brakes, although at the beginning of the year the corporation had no customers at all. Present orders have a value of \$45,000.

The corporation has done a great deal of pioneering in the use of links for aircraft. The links in the invention and development of Claude Sauzade, Jr., operate similar to the universal expanding automobile links except that it is better and is provided with cooling fins. Each link operates independently of the other by a separate foot pedal.

Battery Firm Buys Laid Plane

The National Lead Battery Co., St. Paul, Minn., announces that it has purchased a Laird plane powered with a Wright Whirlwind engine.

This plane has been purchased primarily to be used in the general conduct of the company's business. About six years ago, L. J. Gluck, president, foresaw the advantages of a decentralized manufacturing, and as a result opened factories and branches in Chicago, Kansas City, Dallas, Spokane, Seattle, Portland, Oakland, San Francisco, New York, N. J., Baltimore, Atlanta, St. Louis, Cincinnati and Detroit.

This made necessary much installing on the part of Mr. Gluck, as well as other officers of the company and depart much lands. The Laird plane which has a cruising speed of 120 m.p.h., has solved the transportation problem and will make possible speedy trips to and from factories and branch offices. The plane was also entered in the New York to Spokane Air Derby.

Mr. Gluck has realized for some time that commercial aviation was in the threshold of American business, and his purchase of this plane proves his sincere belief in commercial aviation.

Engineers Experiment With New Parachute

Development of a new type of parachute, which, according to engineers and leading business men prophesy, will be used to bring aerial transportation of express, light freight, newspapers and other merchandise into more general use, is now under way at San Diego, Calif., by the engineers of the B. F. Makey Aircraft Corp., headed by Colonel Charles Langbein of the "Sports of St. Louis," and James Russell, formerly commander-in-chief of the Army Air Corps experimental station at McCook Field, Dayton, O.

A recent test conducted with a Ryan monoplane and a simple parachute, proved that it was feasible to deliver a switch from a speeder airplane high in the air at a given point without even making the usual A. western newspaper, now experimenting with the airplane-parachute delivery system, successfully delivered a bundle of newspapers 40 mi. away in 10 min. From the time the papers were off the press, the airplane making no landing on route.

Detroit Firm Has Unique Riveting Machine

The Aerom Development Corp. of Detroit, Mich., is using a very interesting type of riveting machine in the construction of a 200,000 cu. ft. steel shed serving for the Navy. The machine is of the bench type, riveting at capacity of 7,500 rivets an hour. It is used principally for riveting steel sheets.



Riveting machine designed by Edw. F. H. H. master mechanic of the Aerom Development Corp.

together with a lap joint. After pressing three holes in the two overlapping sheets three wires run through the holes and are then staggered off, and not in headed fashion the wires into rivets. The operation is continuous passing three holes at a time through rivets in each step. The machine was developed by Edw. F. H. H., master mechanic of the Aerom Development Corp.

Dennison Operating from Dennison Airport

The Dennison Airport Corp. report that it is now operating from the Dennison Airport. This airport has been under construction for the past several months and is located on the Georgetown highway south of Denver, Minn. The airport occupies the Dennison Plant that was built during the war and has since been used as a base of operations for the Naval Reserve. A three foot general air was passed on the new machine with headwinds designed to make the landing field. The Spanish type chain hooper and observation building has been completed for some time.

The Dennison Aircraft Corp. is dealer for West and Kiser planes in its territory. Its second Kiser Aerom was recently delivered by Mr. Kiser. The plane was flown through from Glenview, Calif., in 30 hr. actual flying time. Absolutely no experience of the North from California. Since the arrival at the Dennison Airport the Kiser Aerom has been used for passenger carrying and general aerial service work.

F. E. Seiler, Jr., Joins Kreider-Reisner

F. E. Seiler, Jr., well known aviation engineer, is now associated with Kreider-Reisner Co., Inc., of Hagerstown, Md., and will give his services exclusively to that company. Mr. Seiler has joined the company in the capacity of chief engineering and production manager.

Standard J-1 Airplanes

completely rebuilt and recovered with factory rebuilt OX5 engines, set up, test flown, and ready for fly away delivery - \$1000.00

Standard J-1 Airplanes

with guaranteed overhauled Hispano Model "A" motors - - - \$1500.00

DeHaviland Air Mail Planes

with Liberty motors \$2500.00 to \$5000.00

Douglas Air Mail Planes

with Liberty motors - - \$7500.00

Orioles

with 180 h.p. Hispano Suiza motor installed \$1500.00
wonderful performance, three place.

1150

OX5 engines factory rebuilt - - \$350.00
OX5 engines government overhauled - \$250.00

Learn To Fly - \$100.00

Write for new catalogue

Robertson Aircraft Corporation

St. Louis Flying Field
Anglum, Missouri

Side Slips

By ROBERT H. DENSON

The newspapers report that Boris Baiden is bringing over from Norway a flying saucer for sale on the Ford beach side Exposition. The news, then, does not state whether or not the saucer is supposed to be carried in an airplane, but let the good of aviation, we hope not. We were once dropped along on a short tour on a car which had been completely disabled by the owner with every folding device he could lay out, with some others he had thought up himself. There were folding seats, tables, seats, doors, beds, bar-bells, tables, everything in the whole outfit folded into itself as smoothly as a hot iron. What with folding up in the morning and unfolding again at night we were able to ride only about four hours out of the day. The chief difficulty lay in the lack of space of the activities at folding up without any warning and at the most embarrassing time. In a very short time the stream began to fill on us and we might have become submerged, but the Ford side of the car folded in a jiffy, while no fold was supposed to take place, thus ending the expedition.

In aeronautics we already have quite enough of that sort of thing—such collapsible wings, fuselages, seats, controls and numerous other folding devices. A folding house designed for carrying in an airplane would be sure to surprise thousands of similar accidents. But it is not so, Lieutenant Baiden, say it and so.

An interesting episode comes to hand from B. S. G., through the courtesy of C. A. H. It is from a novel one of a Mission paper and tells of no wonder in a short piece.

John jumper, "He did 2000 feet with his suspended parachute, landing in some soft mud. The force of the impact drove him into the ground where he lay dead." He was injured and taken to the hospital where he is recovering. It is said he is probably the only man to have fallen that distance, without being killed."

Fortunately we haven't heard of many men being blown along great lengths of aeroplanes, but it is a very dangerous operation that this is probably a record. Anyone daring to dispute responsibility should well look into the matter up with the Council Committee of the N. A. A.

If people intending a sort of jump will make pre-fall drops from that height only, a jumper like the one would be known as the parachute jumper. During the last July and August we did see that almost any spot anywhere in the United States could have been selected with the assurance that it would be plenty soft.

Butel Gross, columnist of The New York Evening Post says, in a recent issue, "It is said to be on the record before me, knowing from the start that it was in the bag."

We have to agree and defend our aeroplanes from such charges. While it might appear offered to an outsider that the rule was not "in the bag", we can assure Mr. Gross that the first were a selected group of "highly skilled" aviators. Before many, furthermore, we have seen "said" take any other branch of aviation.

The latest in aircraft development is the Hines machine high speeds for the Miles-Hobbs-Mayer station, in which they tried to fly a test from Hollywood to New York. From various data we can well remember that when the stress comes to tests, the most rapid in the advertising circuit goes to the best part of the whole show. Several times we can never hope to have the popularity of the old-time head-banded circus if they can't get the "true" eye having, dozens of the Hines people, captured London and Scotland, at tremendous expense and great loss of life, in their native lands."



AIRPORTS AND AIRWAYS

Cleveland, Ohio

Two parachute jumps by members of the Eastern-Biddle Company, recently started the tower, and every man on the 1000 feet was to be the next jumper. John Paul Biddle, second manager of the company, and Charles E. French, police problems member of the firm, made the instruction of P. G. Mason, parachute expert from Fairfield, O., jumped from 2000 ft using a standard cardboard parachute. They did it to demonstrate the safety with which a parachute could be used to the crowd that would be the next jumper before. New Biddle has a lot of applications which include every member of the firm, including T. H. H. French, the president.

Two visits from Ford three-armed planes, have marked aviation at London Airport. One carried freight only and the other passengers. One was the Ford air truck operated by the Royal Express Company for making emergency deliveries by parachute of portable generators. It was flown by John A. Collins, the Royal Express Company's pilot. The other, armed and operated by the Royal Air Service, Inc., was flown by C. D. Brown, and carried a group of doctors to Florida on the overnight flight of the Ford Biddle Air Line which plan to start a regular service in October between Detroit and Jacksonville, with Cincinnati as one of the stops.

The three-armed plane owned by the A. D. Shaw Company, publisher of business magazines, also visited London Airport on its regular line of business for the company. The

company was taken to visit a machine from the Wagon Air Service of Detroit which was originally was designed in a night landing at Cleveland recently. The company owns a Wilson-Detroler monoplane, which is now at the factory having a new landing gear fitted.

The Eastern-Biddle Company has erected a new administration building and passenger depot on London airport. The company obtained a small loan on the west side of the airport adjacent to the road, which at one time was the site of a big barn of the former who formerly owned the land. A building of wooden frame has been erected, which occupies a wide of office, a waiting room, a shop room for the flying school and a small dormitory for the crew. There is also a small apartment house with 10-12 rooms with kitchen.

Continental has a proposed bond issue of \$200,000 on its program for the fall for its expansion and improvement of a municipal airport. As yet, the only size seriously considered has been the London airport, already developed and is operating. London Airport is southeast of the city between the Hudson and Ohio Rivers, and is owned by the Eastern-Biddle Company and the Army. For a reserve officer's station, under lease from the London Airport Company.

Belle, Idaho

By Robert Denison

Providence has been an inspired in the life and character of Mrs. Sarah De Haven, daughter of Belle, now 85 years old, who resided the place in 1830 in a general store, that her family were only modestly surprised when she engaged an



THE LAIRD COMMERCIAL WHICH WON THE N. Y. TO SPOKANE AIR DERBY

Powered with Wright "Whisper" 221 hp Engines

Equipped with

SCINTILLA

Aircraft Magnets

SCINTILLA MAGNETO COMPANY, INC.

Contractors to the U. S. Army and Navy.

SIDNEY, N. Y.

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IGNITION CABLE



"Install it and Forget it"

Insulated with fine rubber, protected with a Flexible Enamel Coating that is not affected by

ENGINE OIL, GASOLINE, OZONE, SALT WATER, FRESH WATER

Unquestioned Performance Under Severe Service Test

Make Acme, Navy and S.A.E. Specifications. Highest grade that's plug cable you can buy. Human safety demands the best.

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The Austin Company of California, Los Angeles and San Francisco

to-day and, Harry MacDougal to pilot her is a commercial plane on an extended trip about Boston.

The landing has early completed was that the pilot was too short and that she would like to continue on to California.

The Boise Airways Association has gone on record as favoring the effect of Spokane is making and encouraging air service.

Worcester, Mass.

The Worcester Airport, located in the town of North Grafton, Mass., five miles southeast of Worcester, is now in the final stages of construction. It is planned to dedicate this field on Saturday, Oct. 8, with the largest air meet ever staged in New England. Plans for the construction of the airport in Worcester were made last March when Major Ira Langworthy, air chief of the first corps area, paid a visit to Worcester for the purpose of securing interest in the construction of a municipal airport. Due to the fact that the only available field was located outside the city of Worcester and since there is no Worcester airport, the city has decided to purchase land outside the city limits, a private corporation was formed, with a capitalization of \$300,000. Construction on the field was commenced in the early part of April and has progressed steadily since that time, and is now



Worcester airport, which is making completion.

nearly completed. The field is laid out in the shape of a cross, with runways 1000 feet long, and cross-ways. The dimensions of these runways are 300 ft. wide by approximately 5,000 ft. long, and the edges of the runways are marked by gravel strips, chemically treated to retain a white color.

The earth-works runway slopes toward the north, at a gradient of 1/2 inch to the foot, and the edges of the runways are marked by gravel strips, chemically treated to retain a white color.

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There are at present on the field two hangars; one a private hangar 30 ft. by 35 ft., constructed of steel, the other a commercial hangar with a 30 ft. by 40 ft. machine shop and office adjoining, constructed of steel and wood. At present there are two planes operating from the field, a Waco 10, owned by M. W. White, Wilbur, and a Standard, owned by Frederick H. Davis.

Immediately after the opening on Oct. 8, an operating company will be established, and general commercial work and instruction will commence. Plans for the dedication are rapidly being carried through, and a stand, capable of holding

HARD LUCK



Feeling mighty soon on account of only getting SECOND and THIRD PLACES in the New York-Spokane Derby. No alibis are necessary considering the wonderful performance of the two entries.

J. M. McInnes, Sales Manager



ALEXANDER



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CERTIFIED

Dept. of Civil Approved Type No. 7 and 8
CASH — \$2475 — DENVER
or may be purchased on Time Payment Plan

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October 3, 1927

AVIATION

535

5,000 people, is being erected to help take care of the vast throng which is expected at the field on the day of dedication.

The wiring for boundary lights has been laid around the field, but the installation of lights will not take place until after the opening, for fear of damage to them. Provision for flood lighting the field has not yet been made, but the question will also be taken up immediately when the boundary lights are completed.

Pittsburgh, Pa.

By Roy A. Taylor

Officers and members of the Aero Club of Pittsburgh gave a morning send-off to Leont B. (Bibi) Dake, pilot, and Walter Stewart, passenger, when they took off recently from Rogers Field, the Pittsburgh municipal airport for Lancaster, Pa., on a brand new Stinson 10, which the Aero Club is sponsoring in the National Air Derby. Lieutenant Dake is a member of the 1024th Observation Squadron, 88th Division, based at a member of the Board of Governors of the Aero Club, and president of the Air Corps Reserve Officers Association of Pittsburgh. Mr. Stewart is a student pilot of Freeport, Pa., and second officer of the plane.

A crowd of two thousand mostly witnessed J. Warren Smith lead the "Pride of Pittsburgh," a new 5 passenger Biplane, at Rogers Field, Red Bank, Pa. He had just



The "Pride of Pittsburgh," the new Stinson, recently purchased by the Aero Club of Pittsburgh, Pa., leaving for Lancaster, Pa., on a brand new Stinson 10, which the Aero Club is sponsoring in the National Air Derby. Lieutenant Dake is a member of the 1024th Observation Squadron, 88th Division, based at a member of the Board of Governors of the Aero Club, and president of the Air Corps Reserve Officers Association of Pittsburgh. Mr. Stewart is a student pilot of Freeport, Pa., and second officer of the plane.

completed a flight from the factory, at San Diego, Calif., accompanied by Walter Chambers, secretary of the Langley Research Association of Pittsburgh. Mr. Smith is a member of the Aero Club, a recent member in R. W. Cleveland. The "Pride of Pittsburgh" is the first of three similar Ryan monoplanes to be delivered to the Mayor Aircraft Corporation, of Pittsburgh, Pa. The plane, and those to follow, will be used as passenger service between Pittsburgh and New York in the very near future. A representative group of men having were present to greet the machine, consisting of Raymond M. Marler, president of the Aero Club of Pittsburgh; Albert J. Shaw, assistant secretary, Chamber of Commerce; R. W. Ellis, representing the Langley Research Association; and D. Ray Ford, manager of Ruffin Field, McKeesport. A short time after the arrival of the "Pride of Pittsburgh," Macle McIntyre, an mail pilot, between Pittsburgh and Cleveland left his company on his business trip to "New York" and, and saw him over Mayor's Field.

Recent reports given out by the postmaster general show that the Pittsburgh-Cleveland air mail route, operated by United Mail of McKeesport, is giving splendid results in

The AIRSEDAN



The Leader of the Top Flight Class

SPECIFICATIONS

Weight empty 2300 lbs.
Wing Span 42 feet
Wing Area 310 sq. ft.
Length 28 feet
Pay Load 1000 lbs.
Seating Capacity, Pilot and 4 Passengers

PERFORMANCE

High Speed (sea level) 115 M.P.H.
Landing Speed 45 "
Cruising Speed 100 "
Service Ceiling 14500 feet

POWER PLANT

Wright Whetstone [T
Horsepower 300 at 1800 R.P.M.
Fuel Capacity 70 gals.
Oil Capacity 4 gals.

EQUIPMENT

Self Starter, Brakes, Metal Propeller, Control, Air Speed Indicator, Altimeter, Clock, Bar, Radiometer, Fuel, Oil Pressure, Oil Temperature Gauge, Air Gauge, Thermometer, Suction and Fuel Valve.

The Airsedan is not equipped with adjustable seatbelts. Exceptional stability and balance under varying loads make the Airsedan necessary.

Price \$12,500

Flyaway, Our Field

BUHL AIRCRAFT CO.

Marquette, Michigan

increased mail traffic from north to south, and increased revenue.

R. C. Shorlen, assistant regional manager of the Alexander Aircraft Company, landed recently at Rodgers Field in an Eagle, and spent several days visiting John F. Morris, the local Eagle distributor. He gave many demonstrations to prospective purchasers. C. H. Pugh, of the same firm, spent Thursday, by landing later in another Eagle, en route to New York to make delivery of the plane.

Frank M. Houch of Houston, Tex., landed by Ryan monoplane "Maxwell House" at Rodgers Field in order to promote its sales, a propeller from the Standard Steam Propeller Company. The next day he flew on to New York to make delivery of the plane in the Maxwell House Coffee Company, the new owner.

Air Corps Troops flying by local officers have been temporarily stationed at Rodgers Field, due to the War Department order suspending the use of the "Jenny" after Sept. 1. Flying will be resumed next week or more new primary training planes arrive.

Oklahoma City, Okla.

By Ernest W. Fox

Grading and clearing of the municipal airport has been completed. C. M. Smith, local contractor, did the work of leveling the field and building of runways. A. E. Warner, secretary of the Chamber of Commerce committee that took charge of the work.

D. S. Adams, district superintendent of the National Air Transport Co., has left a Cuyler Carrier plane as a mail plane on the line.

Dick Evolution and Henry C. Martin have been working on plans for a proposed airplane storage and service station on the N.A.T. field here. Martin is head of the Chamber of Commerce aviation committee and Evolution manager of the O. S. airport, north of the city. Turbott and an Oklahoma City business man, Virgil Brown, are now negotiating the purchase of the land to set on as good service station and as suitable from a topographical standpoint as the N.A.T. field. After the building is completed a service station is to be added.

Jack Crawford and Mike Penn, local pilots, have left for the New York-Spokane derby. They are being backed by the local Junior Chamber of Commerce under the direction of Harold Tilton and Ray Doremus. They are using a Travel Air plane equipped with a Curtiss O-2 engine.

Stanley Draper, secretary of the Chapter of Commerce, made an air trip to Wichita on business. E. J. Mollins, representative of the Wright Aeronautical Corporation of Paterson, N. J., was here recently.

E. L. Denker was one of the first passengers to make use of the air passenger service recently inaugurated. He came from Kansas City, visiting a day time when a business man, William York, post office employee, purchased a Standard plane from Carl Skidde of Tulsa Flying School.

The new runway at the municipal field southeast of the city is 2000 ft. long by 400 ft. wide.

Plans are being laid for giving Oklahoma City more reliable aviation. There is at present a large arrow pointing due north on top of the Post building here.

A number of regulations have been adopted by the local field; they are: (1) Passengers, be sure that your plane and pilot have the proper license. (2) Start no engine without permission in cockpit. (3) Leave no engine running without permission. (4) Pilots without transport license shall not carry passengers. (5) All air commerce regulations must be obeyed on this field.

Feed the Law, Wis.

Regulations for the operation of aircraft over the city were recently adopted by the city council. The air commerce prohibits low flying over the city, over hospitals, athletic fields, or any other places where large crowds of people are present, and also forbids stunt flying over the city. It prohibits pilots from throwing any missile, paper or any other article from an aircraft while in flight, gives the com-

Royal Typewriters Delivered by Parachutes

THE ROYAL TYPEWRITER COMPANY of New York purchased a number of parachutes for parcel delivery from us in July. They were so pleased with the successful operation of our parachute that we provided an additional order in August and they are now busy delivering typewriters by "Air Travel," dropped by parachute without damaging a single machine. Read what Miss A. Bessner says about these parachutes in following letter:



We manufacture parachutes of all kinds for all purposes. Write for literature and price list.

Henning Parachute Co.

Formerly Hardin Parachute Co.

3926 Bryant Ave. N.

Minneapolis

air control over airports within the limits of the city and require that all pilots carrying passengers over the city must be licensed by the United States government, and must have had three months experience and tested in accordance with the Buffalo law.

Buffalo, N. Y.

Definite plans looking to the establishment of an Army air reserve station at Buffalo on land to be leased by the city as a permanent base at a nominal rate may be the outcome of a conference to be held in this city on Oct. 15, between Mayor Frank N. Schoenh and F. Truxton Devine, assistant secretary of war for aeronautics.

Buffalo's mayor has just been informed that Mr. Devine will be in Buffalo on that date for an inspection of Buffalo's airport and a conference on aviation here. The mayor will meet up with Mr. Devine the question of establishing an air reserve station here for the training of pilots and also as a auxiliary to Army aviation links throughout the country.

Springfield, Mass.

By Chas. Edwin Cole

Springfield's first air pageant was held at Dean field recently and was generally considered a great success.

Franklin Thompson, accompanied by Harry Raven, R. Lindbergh, and Prince Albert Dwyer, were among those present at the opening banquet. Franklin Buebe was present also at the field and was clothed with Federal Inspector Washington C. Ferguson in a Travel Air. The line joined and to return here after the National Air Races at Spokane.

The first two of the meet, the five for all to Heloise and return a distance of about 70 mi., was won by W. O. Sargent in an Eagle. The second, the five for all to Heloise, was won by a Charles Hawk he had flown up from Washington and he started his way into the hands of the crowd which thronged the field during the last two days of the program.

The starting cup was won later, however, by Lind. R. C.

Barrows of the New England Aircraft Company of Hartford, in his Hawk. He finished the crowd with his dead start landing in one half day. Chalk was the first for all over to cut and a half success.

The landing on the mark contest was won by Lieutenant Barrows, Harry Lawrence of Springfield Airlines close second. The plane went long away carrying passengers all day long.

Action toward the acquisition by the city of a municipal airport was continued in two orders recently submitted to the city council. One order recommended the creation of an official aviation committee and the other order to start proceedings for obtaining the necessary permission from the legislature for the purchase of the field of Longmeadow which is now being used and is known as Dean field.

Grandson Alvin Smith of Glasgow Falls who recently celebrated his 18th birthday by flying from the East Boston airport to Old Orchard Beach, Me., is one of the country's oldest fliers and is one of New England's most famous aviation enthusiasts. He not only took to the air in his first plane by the last's day about the New England meet but thoroughly enjoyed it and regretted that the trip was not longer. The fact that this flight was made after a birthday party on the preceding day, which had lasted into the night and included much of a strenuous celebration, made his trip all the more remarkable.

This field was set Grandson Bennett's first. She made a flight with Harry Jones of Old Orchard when she was 10 and was so confident that Jones possessed her father when she reached the age of 180. Last year she went up again. This year she made her first cross-country flight in company with the Charles W. Fowler, 18, of Rochester, N. H.

Local aviation are interested in the plans of the Claremont N. H. officers who have built an airport including hangar facilities, without as much as a plane to use the field. They are a one of English enthusiasts but is a well calculated scheme by the Claremont enthusiasts to get their town on the map and encourage local aviation. Harry Horvath has been

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Ryan Brougham Monoplanes

(Five Place)



The same model that Lindbergh flew, adapted to passenger carrying.

WE SHALL BE PLEASED TO DEMONSTRATE TO ANYONE INTERESTED

The Ryan Brougham Monoplanes are equipped with WRIGHT WHIRLWIND J-5C Motors, have Standard Steel Propellers, and Edge Hard Starters. They are also provided with luggage compartments.

The planes have a Cruising Speed of 100 miles per hour, and a Cruising Range of 750 miles.

These features combined with the quick take-off, slow landing speed, and maneuverability make them ideal planes.

VON HOFFMANN AIRCRAFT CO.

(Distributors of Ryan Monoplanes)

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STUDENT TRAINING

With steady modern equipment

We take every necessary safety precaution, including the use of parachutes for our advanced training

the hostess considerable help in their plans for an air meet on Oct. 5, 7 and 8, which will formally dedicate the field.

Aircraft occupied a place at the Kansas State Exposition here this year for the first time in its history. The Colonial Air Transport and the Eaglemaster again have taken over a tent as the exposition grounds and were able to place in it a display which attracted a great deal of attention.

The central figure in the display was the Eaglemaster plane which was made available for thirty three spectators by means of a small platform on each side of the fuselage about opposite the rear cockpit. A steady stream of spectators passed up the steps during the busy part of the day, it was reported. This was another step in the aviation education of thousands attending the show.

The Colonial exhibit under the supervision of E. A. Polich, Hartford manager of the company, led a shipping business in handling out five thousand postal cards and selling air mail stamps. The day was reported to have been very successful and about 500 pieces of mail matter were dispatched daily from the temporary air mail station at the tent. Polich had a way of the United States air exhibition with the air mail station indicated in addition to help his customers visualize the routes their mail would take.

The mail was deposited in a large mail box and sent over to Springfield each day in time for the train to Hartford where the local air mail is transferred to the planes. A big crowd was expected the first two days of the exposition where the demonstration collections were their source of funds. The entire state stamp was considered particularly valuable by them, it was said.

Two B. B. T. products were placed in one corner of the tent. The Goshawk leaves behind at night and attracted much attention. The other was a 100 amp lighting flood light. Another exhibit was of aerial propellers.

The airport committee recently appointed by the city council to consider the matter of construction of a municipal airport made a tour of the three test-kitchen fields here.

Mayor Purdie C. Parker made the rounds with the group and expressed considerable interest in the discussion of the project.

No definite opinion of the group as to the best location could be determined, but it was suggested that Chase Field at Longmeadow, now being used by the Springfield Airlines, was the most desirable. The other fields suggested were the Agnew field where the Eaglemaster planes are now operating and the East Longmeadow field which has received the consideration of Army firm in the past.

Kansas City Airport



An aerial photograph of the new Kansas City airport, showing the taxiway nearly completed.

UNITED STATES AIR FORCES

Air Corps Laboratories Open Oct. 12

The new home of the Army Air Corps' laboratories, near Dayton, Ohio, will be formally opened Oct. 12. War Department officials headed by Secretary of War Dwight F. Davis; Army and Navy officers in high command; representatives of the state of Ohio and the City of Dayton, of the aircraft industry, of engine and labor and thousands of someone will attend the ceremonies which mark further expansion of the efforts of the government to improve airplane design, to increase efficiency of airplane engines and to perfect air navigation and equipment.

The First Pursuit Group, Goldridge Field, Ohio, will fly to Dayton to participate in the dedication ceremonies, arriving at Wright Field on the morning of Oct. 12.

The Army Air Corps' laboratory, known formerly as the material division, is the birthplace of many improvements in airplane operation and air navigation.

Until recently the home of the material division was at McCook Field, also near Dayton. Its new quarters are located six miles northeast of that city on a 5000 acre tract. Not far from the modern buildings and latest type hangars which form an island, believed to be one of the finest landing fields in the world, stands the Sandole Hotel, through which the Wright Brothers, after whom the field is named, leased their first airplanes. This site was deeded to the War Department for Army Air Corps engineering purposes by the Dayton Air Service Committee made up of residents of Dayton. The formal dedication of the site will be part of the ceremony on Oct. 12.

The laboratory building is a single room structure, has 144,000 sq. ft. of open floor space and houses the engineering laboratories. The arrangement affords splendid coordination

of the various research activities and promotes an efficiency of operation impossible under conditions at the old site, where the laboratories had a sporadic growth over a period of years, the buildings being placed so awkwardly against buildings rather than from a consideration of convenience and economy of operation.

The new dynamometer laboratory takes into consideration two outstanding features of modern aircraft engine development. It has a six-cylinder engine and larger horsepower. The facilities for testing have been increased about fifty per cent and the larger dynamometers will be capable of absorbing 1500 hp. in a single unit. An interesting feature of the dynamometer laboratory is a blower system in the basement for circulating a blast of air to the six-cylinder engine that will simulate the speed of normal flight and send the engine under test. In the old laboratory it was necessary to install very cumbersome blowers in the same room with the dynamometer equipment, and the blowers occupied considerably more space than the testing equipment. The dynamometer equipment consists of an engine which may be used for either air or water-cooled engines to absorb up to 1500 hp. Another interesting apparatus measures the performance of engines at simulated altitudes. This is the air entering a specific cylinder will be conditioned so that the volume and temperature of the air can be definitely measured and controlled and temperatures as low as 80 deg. below zero can be obtained. A rotating device which measures the flow demanded by the carburetors under any conditions is another feature.

The propeller test rig is probably the most important propeller laboratory in the world and the only one of its kind in this country. It consists of three dynamometers on legs, arranged so that the experiment from one propeller can be thrown into the range of another propeller under test, so to simulate flight conditions. One of the three stands is equipped with a high speed turbo-turbine engine capable of service at a speed up to 4500 rpm. This engine will develop 2500 hp. Electric current at 35,000 volts is used for



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Embodying the modern features of insulated, heated and ventilated cabins, these luxurious planes combine complete comfort for

the passenger and pilot with all the "dash", speed, climb and safety that aeronautical skill has yet evolved.

The record of Wright "Whirlwind" Engine durability, reliability and safety in private flying is just as outstanding as those made in several recent overseas flights, and in over 4,635,000 miles of military and commercial flying during 1926.

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